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Rebuttal Expert Report of Scott L. Turner

March 11, 2014

***United States District Court
Eastern District of Arkansas
Eastern Division***

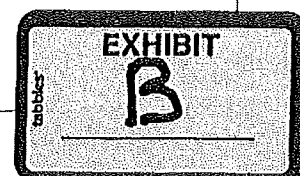
Docket/Case: 3:12CV104-BRW

***Ted Chandler & Martha Chandler
Plaintiff***

v.

***Jacob's Engineering Group, Inc.,
APAC – Tennessee; and, Protection Services, Inc.
Defendants***

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SCOTT L. TURNER CONSULTING, LLC

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Date: March 11, 2014

Report by: Scott L. Turner

Prepared for: Attorney Frank Day
Leitner, Williams, Dooley & Napolitan, PLLC
Brinkley Plaza, Suite 800
Memphis, Tennessee 38103

Case Caption: Ted Chandler & Martha Chandler v. Jacob's Engineering Group, Inc.,
APAC – Tennessee; and, Protection
Services, Inc.

Jurisdiction: United States District Court, Eastern District of Arkansas, Eastern Division

Cause/Case/Docket Number: 3:12CV104-BRW

Rebuttal Expert Report

General Information:

Date & Time of Crash/Loss: Tuesday, January 18, 2011 / approximately 5:48AM

Location of Crash/Loss: Interstate 40 Westbound, West Memphis, Arkansas,
MP 281.6, immediately off Interstate in median stopping just
short of crossing Highway 131 that ran North/South underneath
I-40.

Equipment Involved: 2005 International 9200, VIN #2HSCESBR95C051058

Weather Conditions: Wet roadway surface resultant from previous heavy fog overlay.

Natural Lighting Conditions: Dark & Overcast

Artificial Lighting Conditions: None

1.0 Persons and Organizations:

- Teddy E. Chandler (hereinafter "Chandler"); Chandler was the driver/operator of the Commercial Motor Vehicle bobtail tractor that was the tractor of the subject crash.
- Trooper Shane William Meyer (hereinafter "Trooper Meyer"); Trooper Meyer was then a veteran of law enforcement since November, 1992. In addition to Trooper Meyer's law enforcement, he was also trained for 3-weeks in a specialized course in accident investigation, and was mentored in accident reconstruction techniques and details by superiors. Trooper Meyer has patrolled the area of the crash for 9-months preceding the crash. Trooper Meyer was the investigating officer to the subject crash.
- Paul Jeffrey Adams (hereinafter "Adams"); Adams was employed by the Arkansas Highway & Transportation Department as the Resident Engineer responsible for the I-40 "project" (#110492). Adam's is a 20-year employee of AHTD at the time of October, 2012.
- James Smith (hereinafter "Smith"); Smith is a 12-year employee with APAC as a Civil Engineer.
- John Alford (hereinafter "Alford"); Alford was then a Traffic Control Supervisor for APAC.
- Max Watson (hereinafter "Watson"); Watson is in Project Management at APAC.
- Intermodal Cartage Company (hereinafter "ICC"); ICC is a motor carrier that for the purposes of this crash was the motor carrier of record that Chandler was leased to. The FMCSR regulates Chandler as an employee of ICC.
- Ernest J. Peters, P.E. (hereinafter "Peters"); Peters is the Expert retained by the Plaintiff.
- APAC (hereinafter "APAC"); APAC is a heavy highway construction contractor that is a Defendant in this action.

2.0 Abbreviations and Acronyms:

- USDOT – United States Department of Transportation
- 49 CFR – USDOT, Code of Federal Regulations
- FMCSA – Federal Motor Carrier Safety Administration
- FMCSR – Federal Motor Carrier Safety Regulations
- NTSB – National Transportation Safety Board
- MUTCD – Manual on Uniform Traffic Control Devices; FHWA
- NATMI – North American Transportation Management Institute
- LTCCS – Large Truck Crash Causation Study
- AHTD – Arkansas Highway & Transportation Department
- FHWA – Federal Highway Administration; USDOT
- NHTSA – National Highway Traffic Safety Administration
- NTSC – National Traffic Safety Council
- ROR – Run Off-Road Crashes
- CMV – Commercial Motor Vehicle

- ECM – Electronic Control Module
- RODS – Record of Duty Status
- CDL – Commercial Driver's License
- TCP – Traffic Control Plan
- TCD – Traffic Control Devices
- FPS – Feet Per Second
- MP – Mile Post
- ME – Medical Examiner
- MOT – Maintenance of Traffic

3.0 General Description:

The area of the subject crash was an area of Interstate 40, MP 281.6. West of the crash location, a significant highway improvement project was being performed by APAC, one of the defendants to the pending lawsuit.

Although it is non significant or relative to the crash, the specific type of work being performed was, but not limited to concrete joint repair work that called for the two right lanes to be closed. This work was final "punch list" type work to conclude the contract.

The westbound Interstate section that is subject to this crash is a 3-lane westbound direction highway. The 3-highway lanes are delineated by white skip lines indicating passing zones. The south side of the subject area of highway is bordered by a yellow fogline and the north side of the highway is bordered by a white solid fogline. Witnesses report that the south side of the subject area was purported to have rumble strips just beyond and parallel to the yellow fogline, off the travel portion of the roadway.

The east and west lanes of I-40 are divided by either concrete Jersey barriers or "W" type guardrails. The specific area preceding the subject crash that was separating the eastbound from westbound lanes was protected by "W" type guardrails.

AHTD traffic count data indicates that both eastbound and westbound I-40 are high traffic roadways based on volume. Studies determined that daily traffic volume for the both east and westbound highways were collectively well in excess of 30,000 vehicles per day. Per year, this volume is estimated well in excess of 11 million vehicles annually. Of the data realized, a significant amount of this volume is CMV traffic traveling through the advanced warning area daily, as this is a major freight corridor.

The area of highway whereupon the CMV of Chandler ran off the road was constructed of concrete and had a clearly visible yellow fogline with rumble strips. In addition, the area was controlled as to traffic flow by means of MUTCD methodologies and regulations. The specific area of construction inclusive of the highway advisory signage was in place for a considerable time span prior to the crash, for at least 9 months prior based on Trooper Meyer's tenure on this section of highway.

As testified to by Chandler, he was well familiar with this section of Interstate Highway as he travels it "*numerous times*" (TC; 147:20) in route to Union Pacific in Marion, Arkansas.

Crossing the solid yellow line and rumble strips, Chandler traveled off the highway into the center median area. The bobtail tractor eventually came to rest near the bridge overpass of highway 40 near the north/south cross section underpass of highway 131, after crashing over an embankment located in the median.

The location where construction work was actually taking place on Interstate 40 was located west of the location where Chandler's CMV had left the travel lanes of the Interstate.

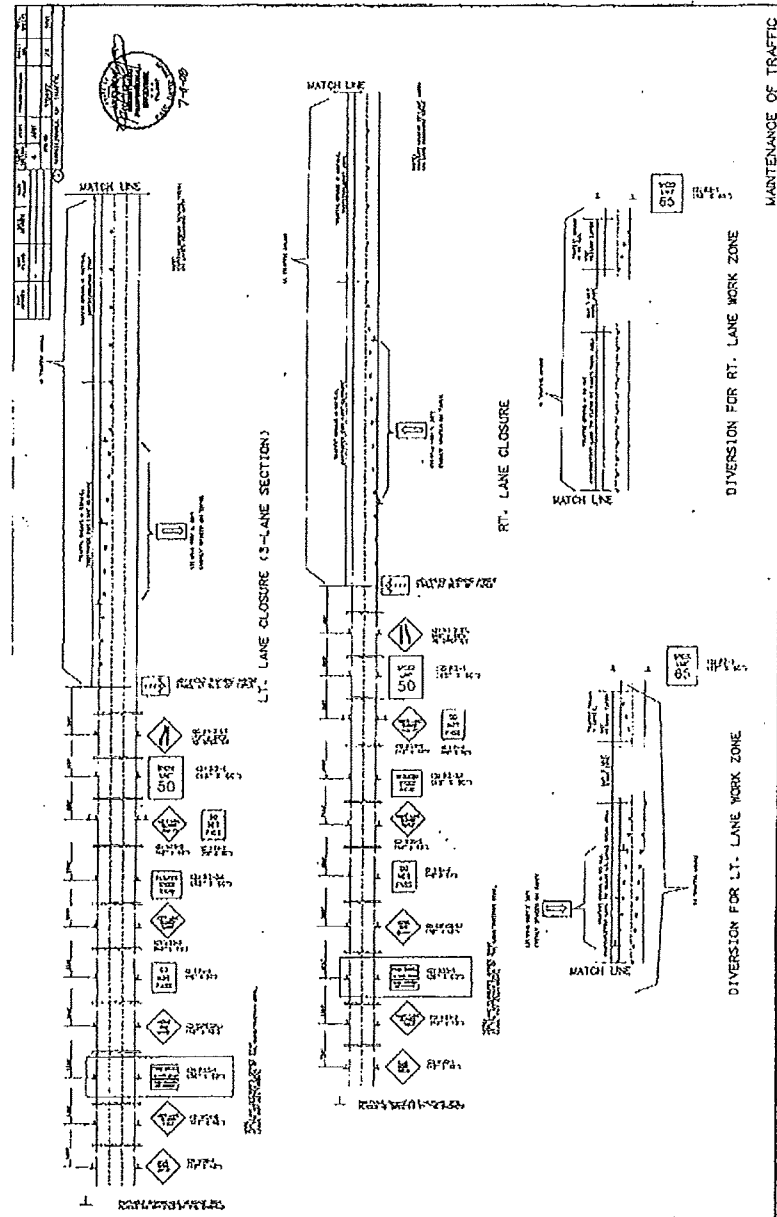
4.0 Document Examination:

4.1 Maintenance of Traffic (MOT)-

In the review of further documents provided to the undersigned as listed below, there are a set of additional opinions further supporting the proper actions of APAC and the improper actions and/or failures of Chandler as a professional CMV driver/operator.

First and foremost, although the MOT plan below lacks clarity from a copy quality standpoint, it can be observed that the MOT plan followed the regulatory requirement of the TA-37 of the MUTCD plan regarding lane(s) closures, both versions to follow:

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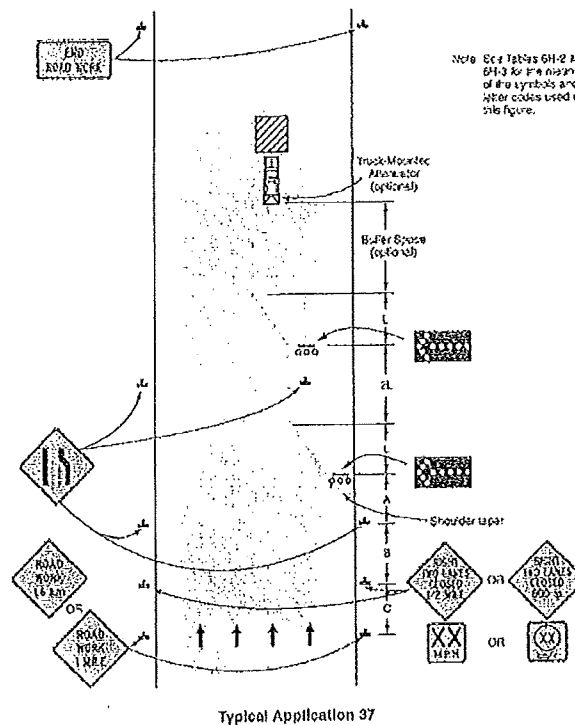


Maintenance of Traffic, Sheet No. 26

2023 B&K

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Figure 6H-37. Double Lane Closure on Freeway (TA-37)



MUTCD 2003 Edition

Observation of the various video footages as taken by Alford (or designee) as he drove the I-40 westbound area of subject confirm the Advance Warning Area met the requirements. There is no question as to the being in compliance with both of the preceding plans.

4.2 Chandler's Failure to Adhere to Advanced Warnings-

The traffic control system – most particularly Advanced Warning Area – had been in place for in excess of one-year prior to the crash. Further, the daily average vehicular traffic volume for both east and westbound highways were collectively well in excess of 30,000 vehicles per day. Of this count, a substantial portion of said volume would have been large Class 10 commercial motor vehicle traffic based on the very nature of the area.

At the risk of being redundant, Chandler testified he was well familiar with this section of Interstate Highway as he travels it "numerous times" (TC; 147:20) in route to Union Pacific in Marion, Arkansas.

In addition to these few facts, no evidence exists that any other run off the road accidents occurred in this same location, and no evidence exists that the Advanced Warning Area confused any other motorist into believing that they should disregard open lanes of travel and exit across the solid yellow fog line and rumble strips. The lack of any proof that a similar accident had occurred at this location is significant. It is inevitable that the drivers who traveled through this same Advanced Warning Area included skilled professional drivers who were operating CMVs, unskilled drivers, youthful drivers, and drivers with lessened cognitive skill. In addition, the States of Tennessee and Arkansas both publish their drivers' license study guides in both English and Spanish. It is very reasonable to expect that some drivers who were not fluent in English, if at all, also traveled through this same Advanced Warning Area without incident.

Mr. Chandler was a well-experienced and seasoned CMV "professional" driver with substantial experience in negotiating construction zones while driving CMVs in commerce. Additionally, Chandler's testimony suggests he was well experienced with this particular subject construction Advanced Warning Area in the near exact configuration as was the day of his crash. The term "near exact" is simply used for the benefit of a drum or sign being adjusted due to drum or sign disturbances, hence the reasoning for the continual efforts of Alford.

The estimated annual vehicular traffic of 11 million vehicle for both east and westbound traffic is substantial. It is reasonable to assume that 50% of this traffic volume was traveling westbound, meaning regular traffic and CMV volume would be approximately 5.5 million per year westbound. With this volume in consideration and considering the various skill sets of all drivers negotiating this simplistic set of advisory instructions, from professionals to novice beginners, and there not being one crash of similar nature, Chandler's actions are clearly of a careless nature, and not that of APAC.

4.3 Opinions of Peters, Plaintiff Expert-

The first and most critical point included in Peters' report is the fact that he misinterprets and misapplies the term "*Temporary Hazard*."

Specifically, the AHTD Standard Specification for Highway Construction, Edition of 2003 (3), Section 603.02 states the following as to temporary hazards:

- *603.02 Construction Requirements. (a) Maintenance of Traffic. Maintenance of Traffic shall be accomplished by the Contractor in an expeditious manner to preserve the integrity of the traveled way and shoulders and to protect traffic from temporary hazards created by Contractor operations.*

The delineation of temporary hazards shall include the placement of any traffic control devices that are necessary for the protection from, and/or delineation of, such objects as open trenches or holes, stationary objects, drop-offs, parked equipment, stockpiled materials, fresh oil, etc. These traffic control devices shall be placed at locations where they will provide adequate warning to the traffic,

including side roads that enter the work limits. All traffic control devices used shall comply with applicable requirements of Section 604.

The term "temporary hazard" was never intended to encompass every potential hazard that could possibly exist, including those created by the actions of a careless driver who fails to follow instructions and fails to heed warnings provided in an Advanced Warning Area that is constructed as required by the MUTCD, which is the objective standard contractors must follow. Plaintiff's expert takes the term "temporary hazard" out of context and misapplies it to suggest that APAC had a duty to utilize devices to prevent an accident that no contractor could reasonably foresee. Clearly, the definition of "temporary hazard" as applied by Plaintiff's expert is taken out of context and not applied as it is defined.

The term temporary hazard is defined in the standard specifications and examples of temporary hazards are provided to help define what qualifies. The definition and examples demonstrate that if the contractor creates a hole, they must protect the same, if they stockpile materials intended for the project or are as a result of the project, such as stone, borrow materials and/or excavated materials, these must be protected. In addition, if the contractor parks a D-6 Cat Highsprocket Bulldozer roadside whereas a commuter may strike the equipment, the contractor must protect the same.

An improved shoulder and median that was separated from the designated roadway with a solid yellow fog line and accompanying rumble strips could not qualify as a "temporary hazard" created by the work of APAC under any reasonable interpretation of the term, as it is defined. The improved shoulder/median, solid yellow fog line, and rumble strips were all permanent features of the roadway, and none were created by the work of APAC. Furthermore, the suggestion that these permanent features of the roadway became a temporary hazard because APAC constructed the Advanced Warning Area in accordance with both the MUTCD makes no sense. The signage in the Advanced Warning Area provided Mr. Chandler specific instructions that he clearly did not follow, and Chandler violated the law by crossing the solid yellow fog line, crossing over the rumble strips, and then driving down the improved shoulder onto the median until he went off an embankment.

While some drivers obviously will make careless and reckless decisions behind the wheel, a contractor such as APAC must be permitted to rely on motorists to follow instructions and warnings that are properly provided as required by the MUTCD. Contractors such as APAC must also be allowed, to a reasonable extent, to expect motorists to abide by traffic laws. If one were to accept the definition of "temporary hazard" as set forth by Plaintiff's expert, the duty imposed on APAC would be unlimited, and APAC's duty would extend to protecting against accidents that were caused because drivers who disregard signs and violate the most basic conventions of roadway travel. By virtue of the very definition of accident : *"an event occurring by chance or unintentionally"* (Webster), it would be impossible and unreasonable to expect a contractor to take steps to prevent every possible accident. The Plaintiff's expert summarily concludes that the improved shoulder was a temporary hazard created by

APAC without even considering whether that conclusion is reasonable under the circumstances, as they existed.

As defined by the FMCSA, a "Preventative Accident" in accordance with the FMCSR – the federal regulations that govern CMV operations – is:

- *§ 385.3 Definitions and acronyms. Preventable accident on the part of a motor carrier means an accident (1) that involved a commercial motor vehicle, and (2) that could have been averted but for an act, or failure to act, by the motor carrier or the driver.*

Considering the above definition, #1, Chandler, a professional CMV driver was operating a CMV; #2, this accident "*could have been averted but for an act*" – inattention and/or driving too fast for conditions, driving fatigue, illegally crossing the left shoulder fogline – "*or failure to act*" – acknowledging and adhering to the plethora of advanced warnings and signage of what to expect in 1-mile, ½-mile, 1,000-feet, followed by further directional signs.

4.4 Hawkins' White Paper on MUTCD-

Gene Hawkins, Jr., Ph.D., P.E a well respected Engineer in the field of Traffic Control Infrastructure authored a White Paper (#6) on July of 2012 titled: What is the Target Group of Road Users that the MUTCD Content Intended to Accommodate, if any?

This White Paper was written for future MUTCD discussions within the Transportation Research Board.

There are several interesting viewpoints of Hawkins' in this White Paper worthy of note as they relate to this crash and Chandler's clear causation of the same. In Hawkins' report, he states the following:

- *It would be simple to say that TCD's should accommodate all users on roadways. However, this is not a practical expectation. There are some road users that agencies may not be able to accommodate. Examples include:*
 - *Road users who are not operating a vehicle in a legal manner. This includes:*
 - *Driver's who are not operating their vehicle in accordance with the law or that are not complying with TCD's*

Hawkins goes on to state:

Although transportation agencies are responsible for a roadway, they cannot be "an insurer of the road or a guarantor of absolute safety."2. Courts have recognized that "it is impossible to design and construct a highway that is always free from [hazards]."3. The responsibility of an agency is to maintain roadways "in a way that is reasonably safe for travel."2. The driver is required to use reasonable care for his or her own safety. It is

only an alert, attentive, and unimpaired driver that can use the roadway in a safe and efficient manner.

Hawkins' writings are very telling as to the "alert, attentive, and unimpaired driver" using a roadway under construction and within an Advanced Warning Area safely, further, the adherence to the instructions given by the TCDs.

² S.I. Pivnik and J.B. Humphreys, *Traffic Improvements - Legal Aspects and Liability*, Institute of Transportation Engineers, Washington, D.C., 1980.
³ *Hampton v. State Highway Commission*, 200 Kansas 565, 498 P.2d 236 (1972).

5.0 Conclusion:

It is an unreasonable expectation that that a highway protective system that complied with virtually every traffic protective measure and their associated regulations is going to be capable of stopping every accident from occurring. There is however a degree of expectation of a CMV driver to travel as a professional with prudence, safety and in a high state of awareness while in a construction zone whereas traffic patterns may change.

Illegally crossing the left improved shoulder fogline is in no way a reasonable expectation that a contractor must prepare for. Ignoring of two miles of proper and in full compliance Advanced Warning Area advising a driver of what to expect in the taper is a reasonable expectation of a contractor as well as the oversight authority – AHTD. It is a reasonable expectation that the motoring public should expect of a professional CMV driver that he/she operates their CMV in a professional manner so as to not put the motoring public at unnecessary risk: i.e. driving fatigued; driving to fast for conditions; and, driving inattentively.

- *FMCSA's Driving Too Fast for Conditions, states: "Before entering a work zone, decrease your speed, merge into the correct lane well ahead of any lane closures, and be prepared to slow down or stop suddenly. Speed increases perception-reaction distance, braking distance, and stopping distance".*

As demonstrated in the undersigned's report dated February 7th, 2014, clearly Chandler was driving too fast for conditions. If he were in fact fatigued, his cognitive skill set would have been diminished in addition to his perception to any hazards that may have existed such as his requirement to migrate to the far left lane, as instructed by the Advanced Warning Area.

It is in no way reasonable for a contractor to expect that a driver will illegally cross a solid yellow fog line on an Interstate highway, which is one of the most basic rules of driving. It is in no way reasonable for a contractor to expect that a driver would also ignore more than two miles of warning signs in an Advanced Warning Area that is constructed in accordance with the MUTCD. On the other hand, the contractor, AHTD (the supervising authority), and the public should reasonably expect drivers of CMVs to

operate in a professional manner by following directions provided by signs and by abiding by the rules of the road. APAC and the public should expect the operator of a CMV to exercise the level of skill expected of CMV drivers, who should not put anyone at unnecessary risk.

6.0 Opinions:

Based upon the foregoing analysis, as a Commercial Motor Vehicle expert possessing nearly 25 years experience in the Transportation Industry and based upon what is good and safe practices in the Transportation Industry, I have come to form the following opinions as to the CMV crash that caused injury to Plaintiff which occurred at Interstate 40 Westbound, West Memphis, Arkansas, MM 281.6 on Tuesday, January 18, 2011 / approximately 5:48AM . I express these additional opinions with a reasonable degree of certainty and probability:

21. APAC's application, installation of, and maintenance of the Advanced Warning Area, meeting the requirements of all regulatory concerns, and the MOT as approved by AHTD was in no way contributory to the CMV crash that occurred on Tuesday, January 18, 2011, at approximately 5:48AM on Interstate 40 Westbound, West Memphis, Arkansas, MP 281.6
22. Chandler's failure to maintain his lane of travel by illegally crossing the improved left shoulder fogline was the final *act* that resulted in the crash. Chandler's failure to maintain his lane of travel was a contributory act to the CMV crash that occurred on Tuesday, January 18, 2011, at approximately 5:48AM on Interstate 40 Westbound, West Memphis, Arkansas, MP 281.6
23. By definition of the FMCSR regarding preventability of this crash, only Chandler was in control of that outcome. Chandler's failure to prevent the crash by operating his CMV in a reasonable fashion maintaining his skill set in high degree of alertness while operating in a construction zone with lane closures was a contributory act to the CMV crash that occurred on Tuesday, January 18, 2011, at approximately 5:48AM on Interstate 40 Westbound, West Memphis, Arkansas, MP 281.6
24. Evidence proves that literally millions of motorists safely passed through the Advanced Warning Area and did not duplicate the crash of Chandler. These motorists were of the following, but not limited to: large CMV's professional drivers; youthful and inexperienced drivers; elderly drivers with potentially diminished cognitive and reactive skill sets; and finally, drivers that are not fluent in reading or writing the English language. This wide range of motorists not crashing, as did Chandler speaks volumes as to his pre-crash condition and/or modus operandi. Therefore, the crash caused by Chandler was nothing more or less than the fault of Chandler. Chandler himself is the only one responsible for causing the crash that occurred on Tuesday, January 18, 2011, at approximately 5:48AM on Interstate 40 Westbound, West Memphis, Arkansas, MP 281.6
25. By careful examination of the Advanced Warning Area and Traffic Control Device placement, maintenance of the Traffic Control Plan in accordance with the

MUTCD and AHTD oversight, it is the conclusion that APAC has done contributed in any way to the causation of the crash that occurred on Tuesday, January 18, 2011, at approximately 5:48AM on Interstate 40 Westbound, West Memphis, Arkansas, MP 281.6

Documents Reviewed:

- Deposition Transcript of Teddy Chandler, w/ Exhibits (two volumes)
- Deposition Transcript of Trooper Shane William Meyer, w/ Exhibits
- Deposition Transcript of Paul Jeffrey Adams, w/ Exhibits
- Deposition Transcript of James W. Smith, w/ Exhibits
- Deposition Transcript of John Alford, w/ Exhibits
- Deposition Transcript of Max Watson, w/ Exhibits
- Plaintiff's Complaint
- Plaintiff's Amended Complaint
- CIA Photographs – 1/21/2011
- Arkansas Uniform Motor Vehicle Collision Report
- Video Footages of I-40 Drive Thru of Advanced Warning Area and Construction Sire – Thumb Drive
- Ride Along Video Footage 01F448F52011010916022301; 1/9/2011 5:02PM
- Payment Records from ICC to Chandler
- Driver Q-File – Partial
- Independent Contractor Equipment and Service Augmentation Agreement
- ICC Pre-Employment Questionnaire
- Driver Status Sheets
- T. Chandler Driver Move History
- ICC – Notice of Contract Cancellation
- IMCG – Accident Review Record
- Chandler – Hand Written Post Crash Statement
- ICC Driver Orientation Program – PowerPoint
- * Arkansas State Highway Commission – Contract (APAC333 – APAC673)
- * Division 100, General Provisions
- * Division 600, Incidental Construction
- * Maintenance of Traffic Plan; Sheet No. 25 & 26
- * 2010 Standard Diary of Alford (ALFORD00407 – ALFORD00814)
- * 2011 Standard Diary of Alford (ALFORD00815 – ALFORD01222)
- * Expert Report of Plaintiff's Expert,

* Documents received after original report submission.

References:

- Black's Law Dictionary; Ninth Edition
- MUTCD; 2003 Edition – 2009 Edition w/ Revision #1 & #2

- NATMI; Motor Fleet Safety Supervision, Principles and Practices, Page 15-1.
- Federal Motor Carrier Safety Regulations
- NHTSA – Run Off-Road Crashes: An On-Scene Perspective
- Transport Topics; Chairwoman Hersman, NTSB 7/12/2010
- FMCSA – Driver Distraction Post
- AHTD; Annual Average Daily Traffic Estimates for 2010/2011 (AHTD Web)
- Sun & Moon Data for One Day – US Naval Observatory
- Is the Moth Effect Real? Marc Green ATA; The Alert Driver, A Trucker's Guide to Sleep, Fatigue, and Rest in Our 24-Hour Society
- EyeAlert.com
- * Merriam Webster Dictionary
- * FMCSA – Too Fast For Conditions, Tip #5
- * Gene Hawkins, Jr., Ph.D., P.E, White Paper on MUTCD dated July, 2012

* References received after original report submission.

As the sole author of this report, I reserve the right to change or amend my conclusions and opinions based on information that was not available to me at the time of this report writing. Should the need for such changes or amendments be necessary I will submit the same to the retaining counsel of this report.

Report By:



Scott L. Turner
President
Scott L. Turner Consulting, LLC